

CLAIMS

1. The use of the Y11414 gene or its functional homologues thereof in other species for the production of transgenic plants that are tolerant to biotic, salt-induced, dehydration-induced, oxidative, and osmotic stress.
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2. The use according to claim 1 for the prevention and/or treatment of biotic, salt-induced, dehydration-induced, oxidative, and osmotic stress.
3. The use according to claim 1 or 2, in which said gene is the
10 Y11414 gene, its functional variants, complementary sequences, and transcription products thereof.
4. The use according to claim 1 or 2, in which said functional homologue is a polynucleotide sequence that exhibits a sequence homology of at least 70% with the variable region of the Y11414
15 gene.
5. A polynucleotide sequence characterized by a homology of at least 70% with the variable region of the Y11414 gene.
6. A polypeptide that is coded by the Y11414 gene, by a functional homologue thereof in other species, or by a
20 polynucleotide sequence that exhibits a sequence homology of at least 70% with the variable region of the Y11414 gene.
7. The use of a polypeptide that is coded by the Y11414 gene, by a functional homologue thereof in other species, or by a polynucleotide sequence that exhibits a sequence homology of at
25 least 70% with the variable region of the Y11414 gene for the prevention and/or treatment of biotic, salt-induced, dehydration-induced, oxidative, and osmotic stress.
8. The use of expression (boxes) cassettes and/or of the biological vectors containing the Y11414 gene, a functional

homologue thereof in other species, or a polynucleotide sequence that exhibits a sequence homology of at least 70% with the variable region of the Y11414 gene for the preparation of transgenic plants that are tolerant to the biotic, salt-induced, dehydration-induced, oxidative, and osmotic stress.

- 5 9. Expression (boxes) cassettes comprising a promoter operatively linked to a polynucleotide sequence according to claim 5.
- 10 10. A biological vector comprising a polynucleotide sequence according to claim 5 or an expression (boxes) cassette according to claim 9.
11. A vegetable host cell, transformed with the biological vector according to claim 10.
- 15 12. A transgenic plant comprising vegetable host cells according to claim 11.
13. A method for the treatment and/or prevention of the damages caused by biotic, salt, dehydration, oxidative and osmotic stresses in the plants, said method comprising transforming said plants with host cells comprising the Y11414 gene.
- 20 14. A method for the treatment and/or prevention of the damages caused by salt, dehydration, oxidative and osmotic stresses in the plants, said method comprising transforming said plants with host cells according to claim 11.
- 25 15. A method for the preparation of transgenic plants that are tolerant to the biotic, salt-induced, dehydration-induced, oxidative, and osmotic stress, said method comprising using the Y11414 gene, a functional homologue thereof, or a polynucleotide sequence according to claim 5.